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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/526,161

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Robert Giehl

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6490

4743

7590

08/20/2009

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EXAMINER

STEVENS, THOMAS H

ART UNIT

PAPER NUMBER

2121

MAIL DATE

DELIVERY MODE

08/20/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/526,161

Applicant(s)

GIEHRL ET AL.

Examiner

THOMAS H. STEVENS

Art Unit

2121

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 13-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13-21 and 23 is/are rejected.
- 7) ☒ Claim(s) 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S5108)
Paper No(s)/Mail Date 06/18/2009
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-9,13-23 were examined.

Section I: Non Final Rejection

2. Claim 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
6. Claims 1-9,13-21,23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa (US Patent 5,481,484; hereafter Ogawa) in view of Watkins (US Patent 5,220,512; hereafter Watkins). Ogawa teaches state variables representative of a circuit diagram with electrical connection and state variables but fails to teach status data of the circuit to which Watkins teaches. Both Ogawa and Watkins teach circuit modeling.

Thus at the time of invention, it would have been obvious to one of ordinary skill in the art to modify the mix mode simulation simulator of Ogawa by the simulated circuit data of Ogawa since Ogawa teaches a method in which the user interacts with the ECAD system through the user of an object-oriented user interface, whereby the user may create, select, move, modify and delete objects on the display screen, where objects may represent circuit components, wires, commands, text values or any other visual representation of data (column 5, lines 35-40).

Per claims 1-9,13-21,23 Ogawa teaches

- at least one physical state variable; target values, (column 3, lines 55-56)
- representing a circuit diagram, (e.g., figure 1, elements of 4,5,6, and 8 representing a control circuit process; or element 16a) which displays, at least for the element, an electrical connection (figure 18A) of the element to other individual elements in the system(e.g., figure 1, elements of 4,5,6, and 8 representing a control circuit process; or element 16a);

Per claims 1-9,13-21,23 Watkins teaches

- displaying data; (figure 3, element 318) of a machine control system (figure 3, state machine control process, element 328)
- receiving status data representing the status data which have been received for the element; (figure 4, status of the logic gate , e.g., element 410) for at least one element of the system, (figure 3, state machine control process, element 328)
- representing a circuit diagram, (figure 3) which displays, at least for the element, an electrical connection of the element to other individual elements in the system;
- limit values, previous state (truth table of state table, all the rows list the possible combinations, figure 4, element 318)

Per claims 2,3 Ogawa teaches

- Claim 2. Method according to Claim 1, where the representation of the circuit diagram occurs using a characterization (technical data of the certain elements, figure 4 element 27),

Per claims 5 Ogawa teaches

- an identification of elements, (technical data of the certain elements, figure 4 element 27),

Per claims 5,14,15 Watkins teaches

- response to user input, which establishes a preset value (figure 4, zeros across the state table)

Section II: Response to Arguments

103(a) Guignet/Henley

7. Withdrawn.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure:

- US 5448147 discloses a selectable feedback control system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715.

If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. Albert Decady (571-272-3819). The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Answers to questions regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) (toll-free (866-217-9197)).

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Art Unit: 2121

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/Thomas H. Stevens/

Examiner, Art Unit 2121